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REMARKS

In response to the above-identified Final Office Action ("Action"), Applicants traverse the Examiner's rejection to the claims and seek reconsideration thereof. Claims 1-31 are now pending in the present application. Claims 1-31 are rejected. In the instant response, no claims are amended, no claims are cancelled and no claims are added.

**I. Finality Premature**

Appellant respectfully submits the finality of the instant Action is premature. It is expressly stated in the Manual of Patent Examining Procedure that "Before final rejection is in order a clear issue should be developed between the examiner and the applicant. To bring the prosecution to as speedy conclusion as possible and at the same time to deal justly by both the applicant and the public, the invention as disclosed and claimed should be thoroughly searched in the first action and the references fully applied." See MPEP §706.07. Even when the Examiner believes the terminology used in the application is unclear, "a reasonable search should be made of the invention so far as it can be understood from the disclosure, objects of invention and claims and any apparently pertinent art cited." See MPEP §702.01.

The Examiner, however, has yet to perform a search of the prior art or provide a substantive review of the claims. Instead, the Examiner states due to ambiguities and confusion in claims 1-31 no art has been cited and that "the examiner will not speculate as to the intended meaning." See Action, page 4. Although not expressly stated by the Examiner, Applicants assume the "ambiguities and confusion" indicated by the Examiner have to do with the use of the terms "volatile" and "non-volatile" in the claims. Applicants, however, expressly pointed out portions of the specification as well as dictionary definitions which clearly evidence the meaning of these terms. Moreover, as will be discussed more fully below, the Examiner herself cites to definitions of these terms which are consistent with those identified by the Applicants in the previous response. Thus, Applicants believe there is no ambiguity as to claims 1-31 and the claims should have been thoroughly searched and references applied in the first Office Action and the instant Final Action. The absence of such a substantive examination necessarily prevents

the development of a clear issue with respect to claims 1-31 between the Examiner and Applicants as is required before a Final Office Action is proper.

For at least these reasons, the finality of the Action is premature. Applicants respectfully request withdrawal of the finality of the Action and that a substantive review of the claims be provided in the next Office Action. Applicants further request the next Office Action be made non-final so that Applicants have an adequate opportunity to respond to the Office Action.

## **II. Claim Rejections – 35 U.S.C. §112, first paragraph**

In the outstanding Action, the Examiner rejects claims 1-31 under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. Specifically, the Examiner alleges the terms “volatile” and “non-volatile” have been used extensively in the specification without defining the meaning of the terms within the scope of the invention. The examiner states these terms are already associated with memory devices within the memory arts and cannot now be used to have a different meaning. Applicants respectfully traverse the rejection for at least the following reasons.

Applicants respectfully submit, the rejection on this basis should be withdrawn at least for the reason that the Examiner has not established that claims 1-31 fail to satisfy the enablement requirement. The enablement requirement “is separate and distinct from the description requirement” and requires that the specification describe how to make and use the invention. See MPEP §2164. The Examiner must consider many factors when determining whether the disclosure satisfies the enablement requirement and must further assess whether any necessary experimentation is “undue.” See MPEP §2164.01(a). These factors include: (1) the breadth of the claims; (2) the nature of the invention; (3) the state of the prior art; (4) the level of one of ordinary skill in the art; (5) the level of predictability in the art; (6) the amount of direction provided by the inventor; (7) the existence of working examples; and (8) the quantity of experimentation needed to make or use the invention based on the content of the disclosure. See MPEP §2164.01(a).

In rejecting the claims for lack of enablement, the Examiner states "The terminology 'volatile' and 'non-volatile' has been used extensively in the specification and claims without clearly defining the meaning of these terms within the scope of the present invention. Additionally, these terms are already associated with memory devices within the memory arts and cannot be used to now have different meanings." See Action, pages 2-3. Applicants respectfully submit the above statement provided by the Examiner fails to consider each of the factors for determining enablement as well as whether any necessary experimentation is "undue." Thus, for at least the reason that the Examiner has not applied the proper analysis in concluding the claims lack enablement, the rejection on this basis should be withdrawn.

Moreover, as pointed out by Applicants in the previous response, the terms "volatile" and "non-volatile," whether used in the computer art or any other art, are simply adjectives used to modify the noun they are used in conjunction with. For example, when the term "volatile" is used in the context of a cache line or segment in the phrase "modified volatile state", as it is in the instant application, it indicates the volatility or changeability of the cache line or segment. See, for example, page 7, paragraph [0020] of the application. Such use of the term "volatile" is entirely consistent with the ordinary meaning of this term.

Nevertheless, the Examiner alleges these terms have long established definitions tied to hardware used for memory and Applicants' use of the terms to identify the state of a cache line or segment is outside of the given practice. In support of her position, the Examiner provides several technical definitions for phrases such as "nonvolatile memory," "nonvolatile RAM," "nonvolatile storage," "volatile memory" and "volatile storage." Certainly when the terms "volatile" and "non-volatile" are used in conjunction with nouns such as "storage" or "memory" these terms are tied to memory applications. In addition, if the definitions of these terms are reviewed, it can be seen that even in the context of memory or storage, the terms "volatile" or "non-volatile" are used to indicate the changeability or volatility of data within the memory. For example, in the dictionary *Microsoft Press, Computer Dictionary, Third Edition*, referenced by the Examiner, the term "volatile memory" is defined as "Memory used by a program that can change independently of the program, such as memory shared by another program or by an interrupt service routine" (emphasis added). Applicants respectfully note, the definitions

previously cited by Applicants, such as the definition for "volatile variable" in the context of programming variables, are further consistent with this meaning. For example, the term "volatile variable" is defined as "a variable in computer programming which can be modified by processes other than the program" (emphasis added). See, the definition for "volatile variable" found at the website www.dictionary.com attached to the previous response.

In any case, Applicants respectfully note, the terms "volatile" and "non-volatile" are not used in Applicants' specification and claims in phrases such as those the Examiner provides definitions of. Instead, these terms are used in phrases such as, for example, "modified volatile state" and "exclusive volatile state" to indicate a state of the corresponding cache line. In addition, the phrases "non-volatile segment" and "volatile segment" are used to indicate the volatility of segments of the cache line. For example, "non-volatile segment" is used to indicate that if the segment is modified or changed by the owning processor or device the segment may generate a notification to sharing processors to ensure that the coherency of the non-volatile data held in caches of a computer system are maintained and the phrase "volatile segment" is used to indicate that a segment contains data that may be modified or changed by the owning processor without notice to other processors. See, for example, Application, page 7, paragraph [0020]; page 8, paragraphs [0021]-[0023]; page 10, paragraph [0030]. In view of the foregoing, one of ordinary skill in the art would understand the use of the terms in this context as referring to the changeability or volatility of the content of the cache line or segment. Thus, Applicants are using the terms entirely consistent with their ordinary and customary meanings attributed to them by one of ordinary skill in the art. Since the meaning of the terms "volatile" and "non-volatile" are clearly defined within the scope of the present invention, Applicants believe claims 1-31 are in compliance with 35 U.S.C. §112, first paragraph and therefore the rejection on this basis should be withdrawn.

For the foregoing reasons, Applicants respectfully request withdrawal of the rejection of claims 1-31 under 35 U.S.C. §112, first paragraph.

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CENTRAL FAX CENTER**DEC 04 2006****III. Claim Rejections – 35 U.S.C. §112, second paragraph**

In the outstanding Action, the Examiner rejects claims 1-31 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. Specifically, the Examiner alleges the claim language uses the terms “volatile” and “non-volatile” in conjunction with cache lines and cache line segments without adequately providing meanings within the specification for this use of the terms.

For at least the reasons previously discussed, the meaning of the terms “volatile” and “non-volatile” in the context of the cache lines and cache line segments are consistent with the plain meaning of the terms and their use is further clarified in the specification. Thus, there is no ambiguity or confusion as to the scope of the language or the meets and bounds of the claims. Accordingly, claims 1-31 are in compliance with 35 U.S.C. §112, second paragraph. For the foregoing reasons, Applicants respectfully request withdrawal of the rejection of claims 1-31 under 35 U.S.C. §112, second paragraph.

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CONCLUSION

In view of the foregoing, it is believed that all claims now pending, namely claims 1-31, are now in condition for allowance and such action is earnestly solicited at the earliest possible date. If there are any additional fees due in connection with the filing of this response, please charge those fees to our Deposit Account No. 02-2666. Questions regarding this matter should be directed to the undersigned at (310) 207-3800.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: December 4, 2006

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CERTIFICATE OF FACSIMILE

I hereby certify that this correspondence is being transmitted via facsimile on the date shown below to the United States Patent and Trademark Office.

Suzanne Johnson 12/4/06  
Date